**MAPCO ALASKA PETROLEUM INC.**

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August 13, 1993

Mr. Kurt Eilo  
Environmental Protection Agency  
Alaska Operations Office  
222 West 7th Avenue, Box 19  
Anchorage, Alaska 99513

Re: Heat Exchanger Bundles

Dear Mr. Eilo:

This letter is to confirm our numerous discussions concerning the regulatory status of the heat exchanger bundles stored at MAPCO Alaska Petroleum Inc.'s (MAPI) North Pole refinery. As we have discussed, MAPI has recently decided not to repair the heat exchanger bundles, but to dispose of the exchangers as scrap metal for recycling. Since the exchanger bundles are now considered waste, it is appropriate to advise you of the basis for MAPI's determination that the exchanger bundles are solid waste, and do not meet the definition of hazardous waste.

**Background** The heat exchangers at MAPI's refinery are product to product heat exchangers, and not designed to exchange heat with crude or water streams. As these exchangers are removed from service they are water washed and steam cleaned ten to twelve / hours in place. When the heat exchanger bundles are removed from their respective shell or vessel, sludge is collected, barreled, and sent off-site. The sludge is managed as hazardous waste under the listing of **K050** Heat Exchanger Bundle Cleaning Sludge from the Petroleum Refining Industry. The exchanger bundles have then been placed in storage while MAPI investigated whether it was more cost-effective to repair the exchanger bundles or to replace them.

**Regulatory Status as "Heat Exchanger Bundle Cleaning Sludge"**

MAPI believes the heat exchanger bundles are properly considered solid waste and not hazardous waste for two reasons. First, the listed hazardous waste pertains only to the sludge resulting from cleaning heat exchanger bundles and not to the heat exchanger bundles themselves. Therefore any residue remaining in the heat exchanger bundles would not be "cleaning sludge" within the meaning of the regulations. This definition is clarified in both the original EPA listing document for K050, and the November 1981

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modification of the mixture rule regarding the wastewater generated during the cleaning process of exchanger bundles.

*not only  
- it's not  
hazardous*  
The washwater used to clean these exchanger bundles is treated in the refinery's wastewater treatment system, and therefore is excluded as a hazardous waste under §261(a)(iv)(C).

<sup>3</sup>  
The exchanger bundles would not be considered a "mixture" since the cleaning sludge is collected after cleaning is accomplished. The exchanger bundles also cannot be considered "derived from" the treatment of hazardous waste since the K050 is not created until the sludge is created through the cleaning operation.

Regulatory Status as an "Empty Container". The second reason MAPI believes the heat exchanger bundles are properly considered solid waste and not hazardous waste is that all the sludge was removed when the exchangers were removed from their respective vessel or shell by practices commonly employed to remove sludge from these type of heat exchanger bundles. If for some reason the residue remaining in the exchanger bundles should be considered "cleaning sludge," then the bundles would be a "container" of the K050 hazardous waste. (We do not agree that residue that could not be removed is "cleaning sludge".) At the point when the exchanger bundle was put in storage the exchanger bundle (or container) contained less than 3% of its volume remaining as residue. Therefore, the exchanger bundles have been "empty" within the meaning of the regulations as defined in §261.7(b)(1)(iii)(A).

Although the containers are already "empty", MAPI intends prior to disposal to hydroblast them as an extra precaution, which will result in another "triple rinsing" within the meaning of the regulations.

Regulatory Status as an "Scrap Metal" Even without the final cleaning, the heat exchangers meet the definition of scrap metal as defined in §261.1(c)(6)... "Scrap metal is bits and pieces of metal parts (e.g. bars, turnings, rods, sheets, wire)... which when worn or superfluous can be recycled". These exchanger bundles will be shipped off site to a contractor specializing in scrap metal recycling.

MAPI has selected a contractor to proceed with the hydroblasting of these exchanger bundles and we anticipate that the work will be completed by the end of the summer season. Since the cleaning operation will create a listed hazardous waste, MAPI will be responsible for all necessary training so that the contract employees work in a safe manner to assure that all OSHA and EPA regulations relating to management of hazardous waste are met.



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I want to thank both you and Kris DuBois with answering my many phone calls and questions concerning this issue. You have helped work through the difficult application of these rules to arrive at a proper interpretation of the regulations which is also environmentally and economically sound.

If you have any concerns or questions relating to MAPI's determination or of its proposed procedures, please advise.

Sincerely



Kathleen McCullom  
Environmental Coordinator  
MAPCO ALASKA PETROLEUM Inc.

KM/GBD/dee

cc: D.C. Rowse (MAPI)  
D.E. Edic (MAPI)  
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K. DuBois (ADEC)



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